FIG. 1

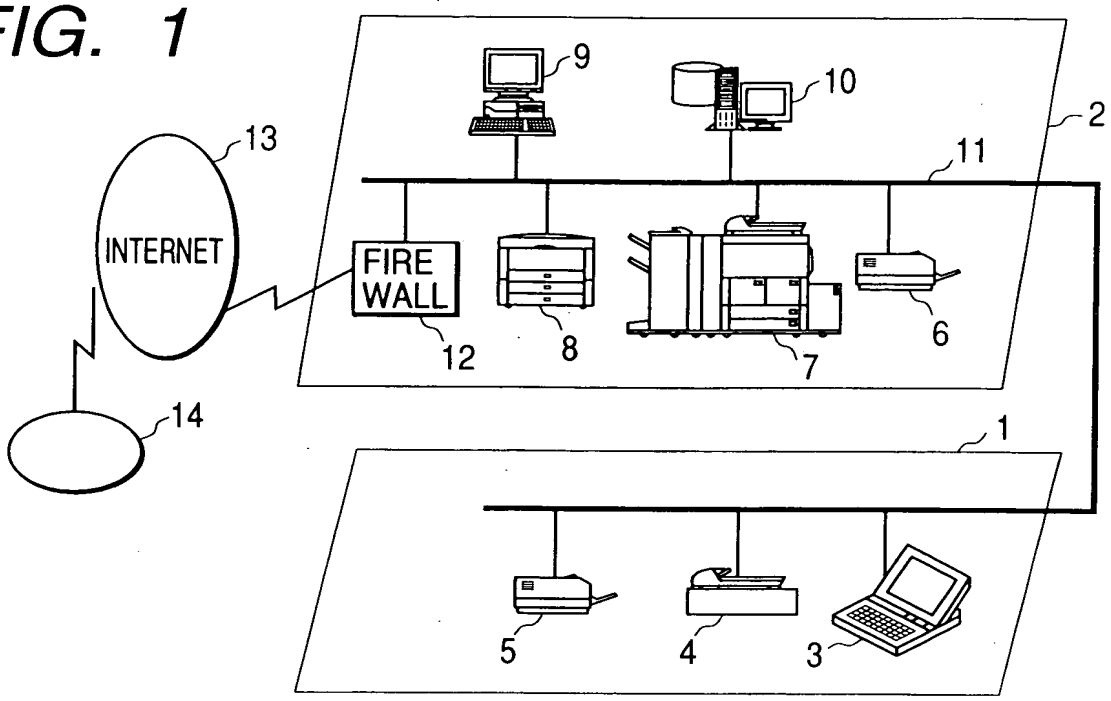

9
10
2
13
11
INTERNET
FIRE WALL
12
8
7
6
14
1
5
4
3

FIG. 2

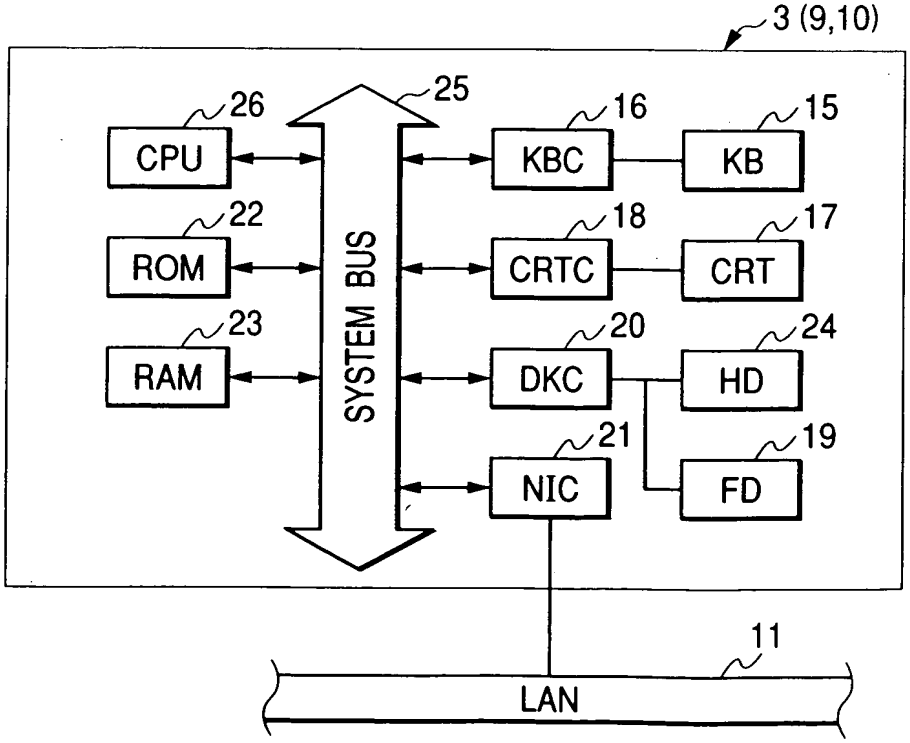

3 (9,10)
25
26
16
15
CPU
KBC
KB
22
18
17
ROM
CRTC
CRT
SYSTEM BUS
23
20
24
RAM
DKC
HD
21
19
NIC
FD
11
LAN

FIG. 3

27 DEVICE NAME	28 NETWORK ADDRESS	29 OBJECT CLASS	30 DEVICE TYPE	31 COLOR PRINTING	32 DUPLEX PRINTING	33 STAPLING
COLOR PRINTER	192.168.16.131	PRINTER	PRINTER	1	0	1
MFP	192.168.16.132	PRINTER	MFP	0	1	1
2ND MONOCHROME PRINTER	192.168.16.155	PRINTER	PRINTER	0	0	1
1ST MONOCHROME PRINTER	192.168.16.156	PRINTER	PRINTER	0	1	0
SCANNER	192.168.16.32	SCANNER	SCANNER	NA	NA	NA
——	——	——	——	——	——	——

FIG. 4 ESC[COLOR]ESC[DUPLEX]ESC[STAPLE 3]···

FIG. 5

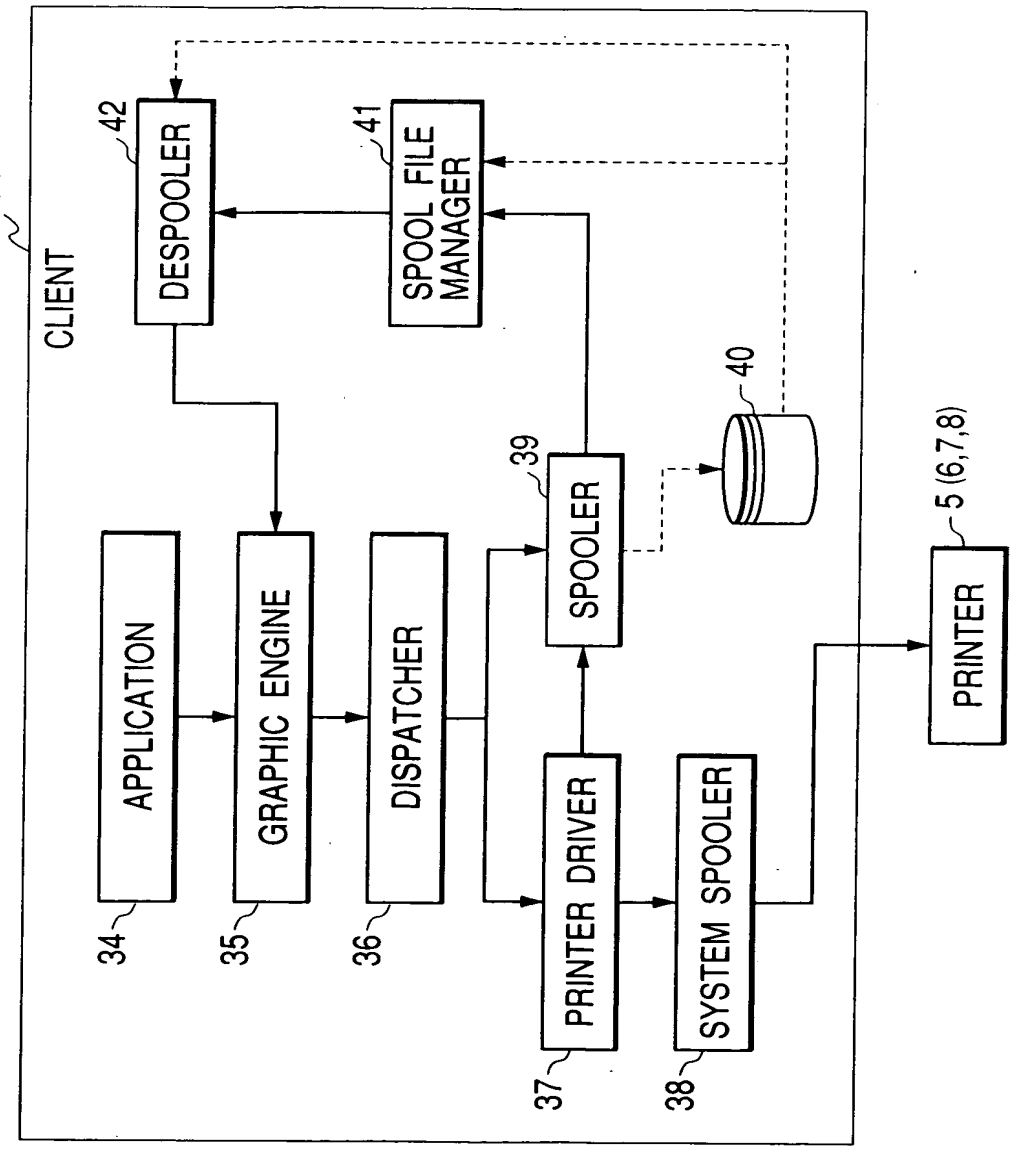

3 (9)
CLIENT
42
DESPOOLER
41
SPOOL FILE MANAGER
40
39
SPOOLER
5 (6,7,8)
PRINTER
APPLICATION
GRAPHIC ENGINE
DISPATCHER
PRINTER DRIVER
SYSTEM SPOOLER
34
35
36
37
38

FIG. 6

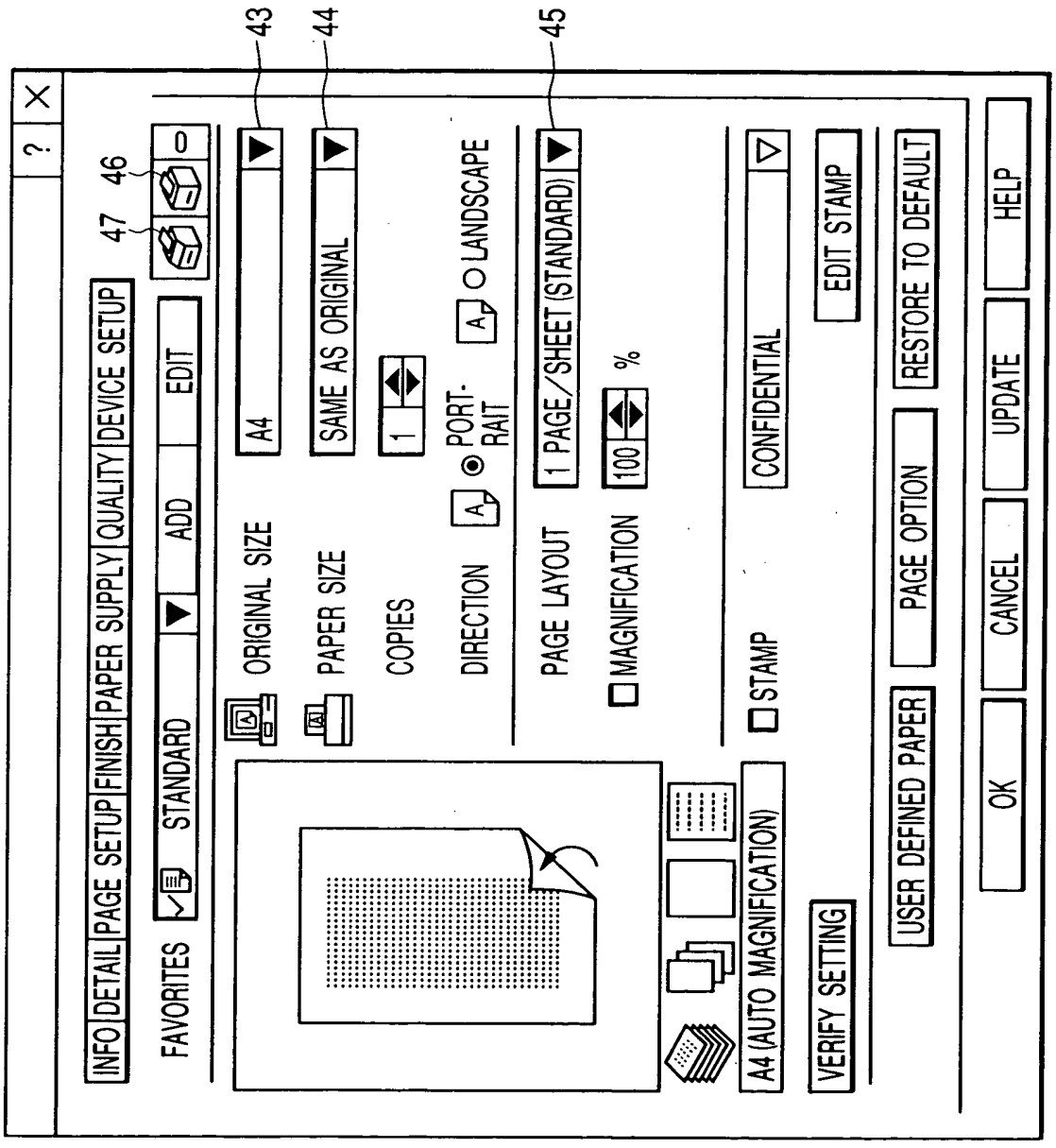

INFO
DETAIL
PAGE SETUP
FINISH
PAPER SUPPLY
QUALITY
DEVICE SETUP
FAVORITES
STANDARD
ADD
EDIT
43
44
45
46
47
ORIGINAL SIZE
A4
PAPER SIZE
SAME AS ORIGINAL
COPIES
1
DIRECTION
PORT-RAIT
LANDSCAPE
PAGE LAYOUT
1 PAGE/SHEET (STANDARD)
MAGNIFICATION
100
%
STAMP
CONFIDENTIAL
EDIT STAMP
A4 (AUTO MAGNIFICATION)
VERIFY SETTING
USER DEFINED PAPER
PAGE OPTION
RESTORE TO DEFAULT
OK
CANCEL
UPDATE
HELP

FIG. 7

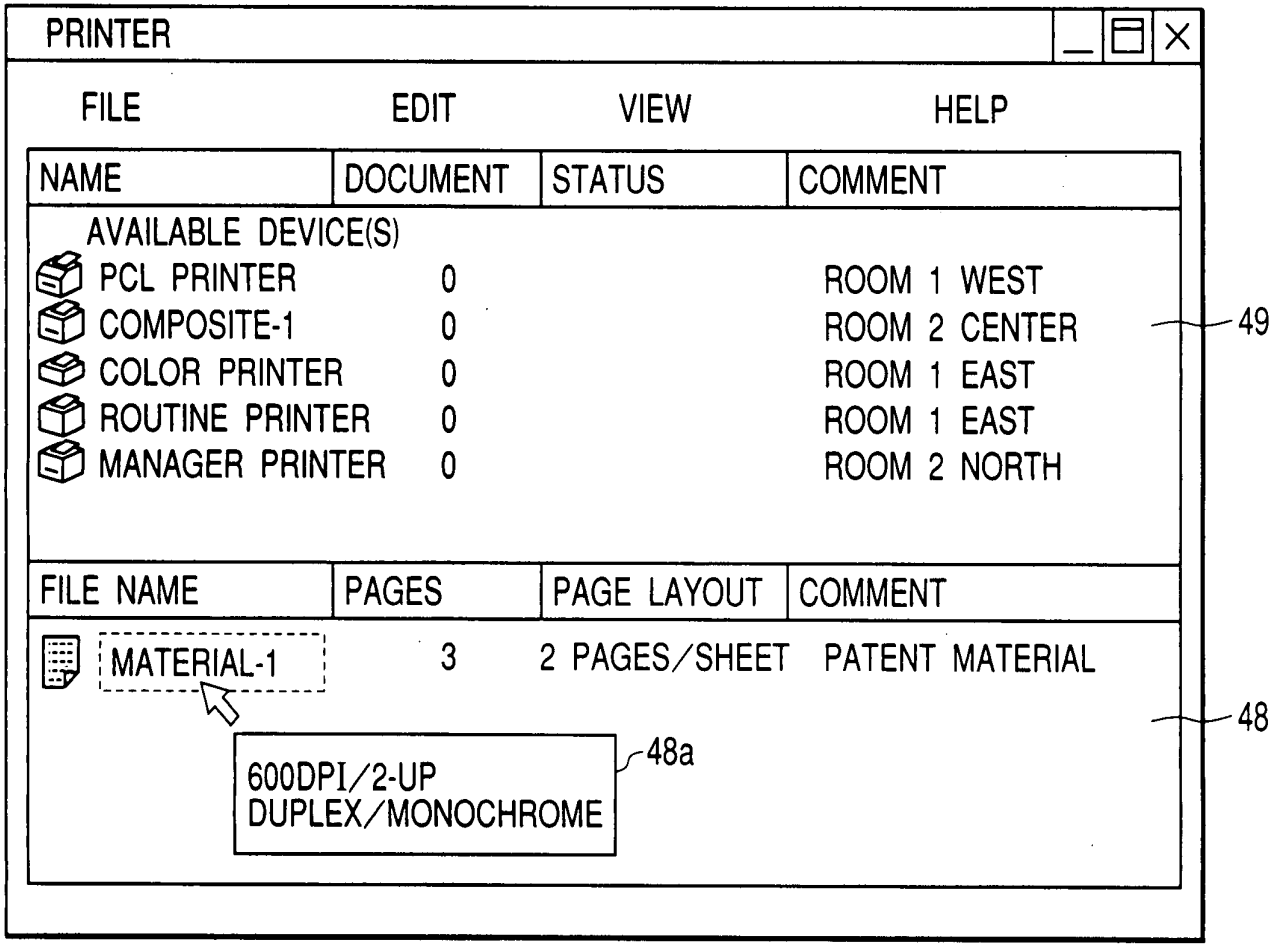

PRINTER
FILE
EDIT
VIEW
HELP
NAME
DOCUMENT
STATUS
COMMENT
AVAILABLE DEVICE(S)
PCL PRINTER 0 ROOM 1 WEST
COMPOSITE-1 0 ROOM 2 CENTER
COLOR PRINTER 0 ROOM 1 EAST
ROUTINE PRINTER 0 ROOM 1 EAST
MANAGER PRINTER 0 ROOM 2 NORTH
49
FILE NAME
PAGES
PAGE LAYOUT
COMMENT
MATERIAL-1 3 2 PAGES/SHEET PATENT MATERIAL
48
600DPI/2-UP
DUPLEX/MONOCHROME
48a

FIG. 8

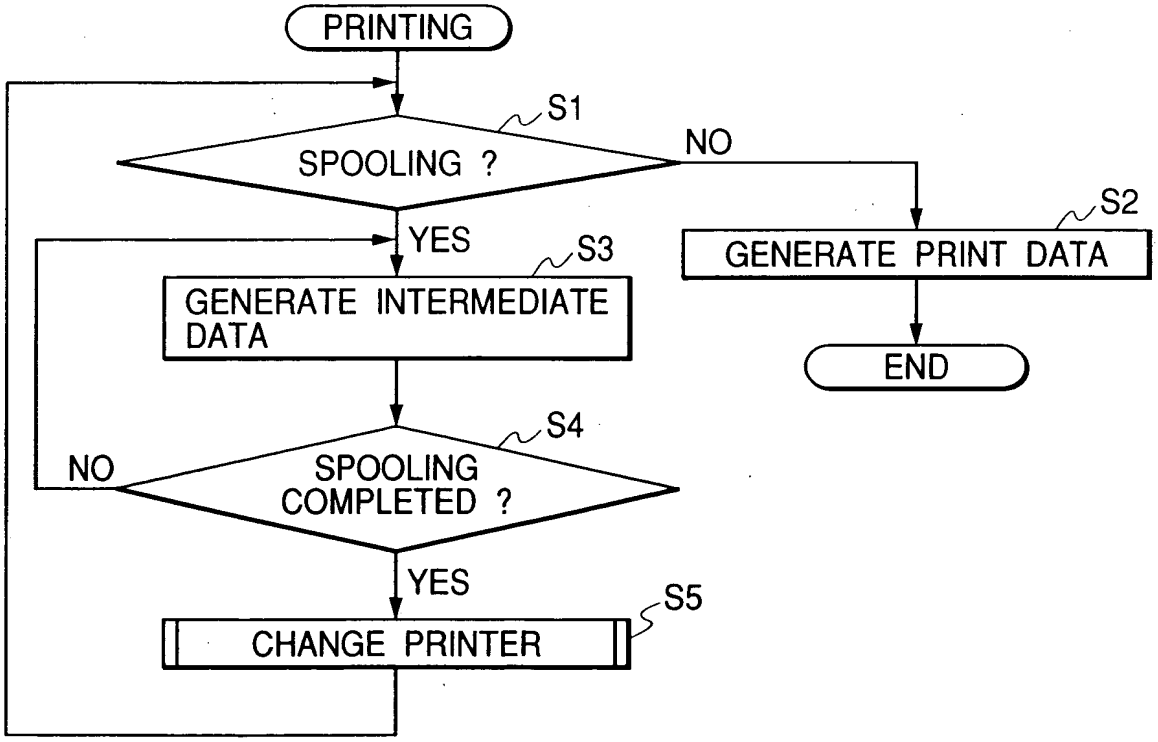

PRINTING
S1
SPOOLING ?
NO
S2
GENERATE PRINT DATA
END
YES
S3
GENERATE INTERMEDIATE DATA
S4
NO
SPOOLING COMPLETED ?
YES
S5
CHANGE PRINTER

FIG. 9

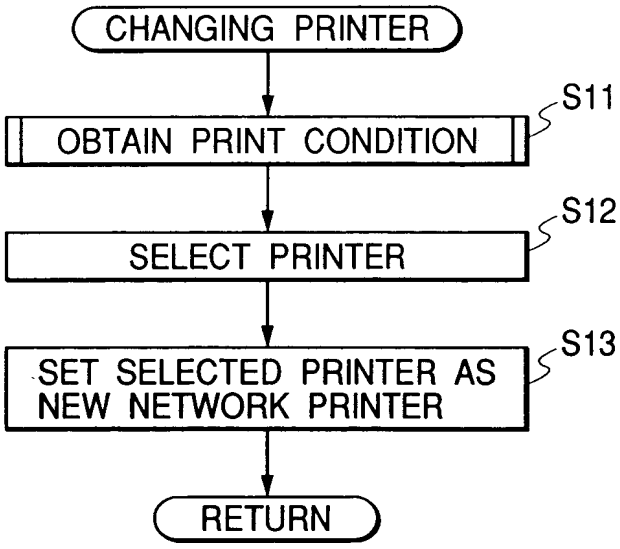

CHANGING PRINTER
OBTAIN PRINT CONDITION
S11
SELECT PRINTER
S12
SET SELECTED PRINTER AS NEW NETWORK PRINTER
S13
RETURN

FIG. 10

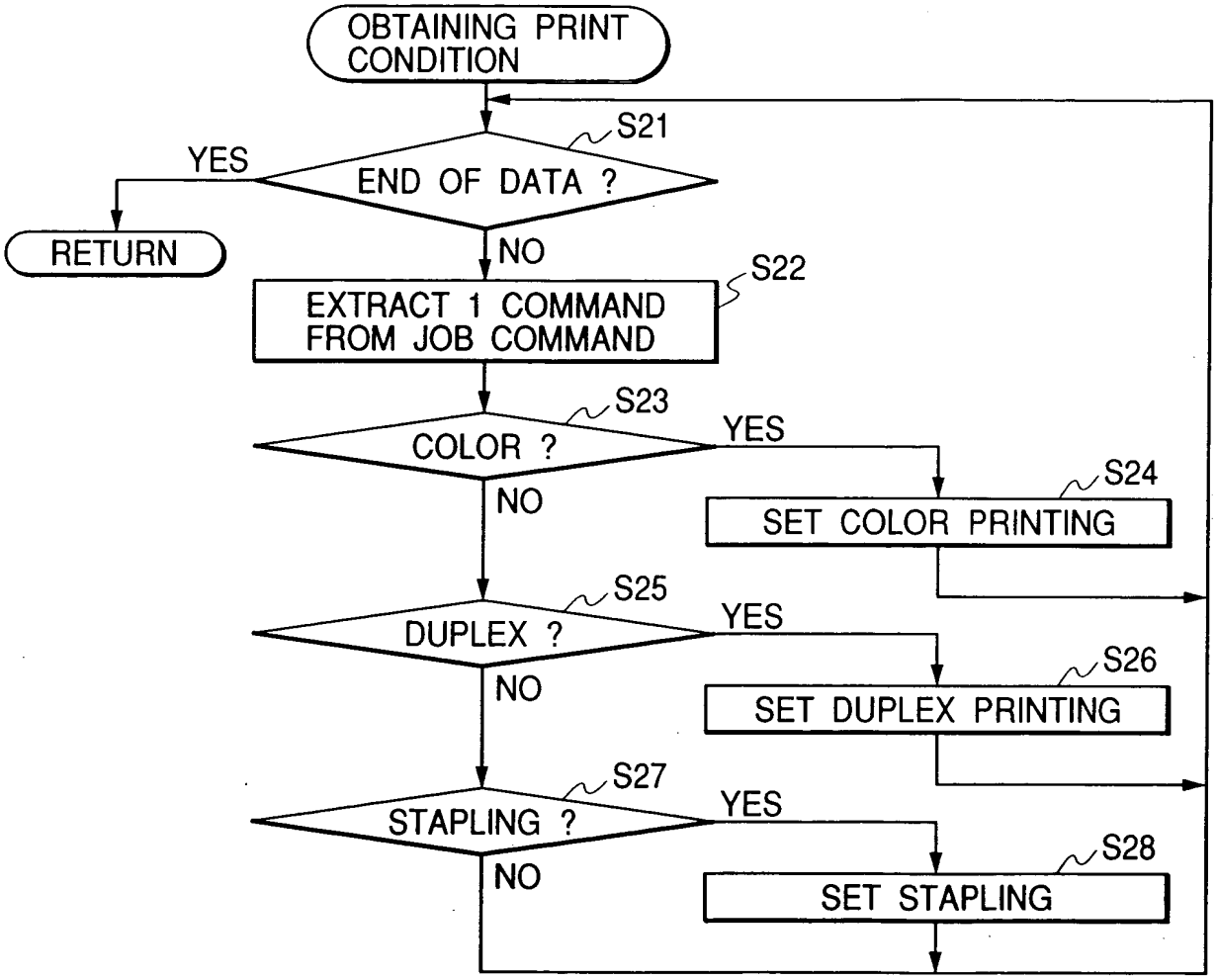


FIG. 11

(OBJECT CLASS = PRINTER)
(COLOR PRINTING = 1)
(DUPLEX PRINTING = 1)
(STAPLING = 1) } 54

(OBJECT CLASS = PRINTER) 55

FIG. 12

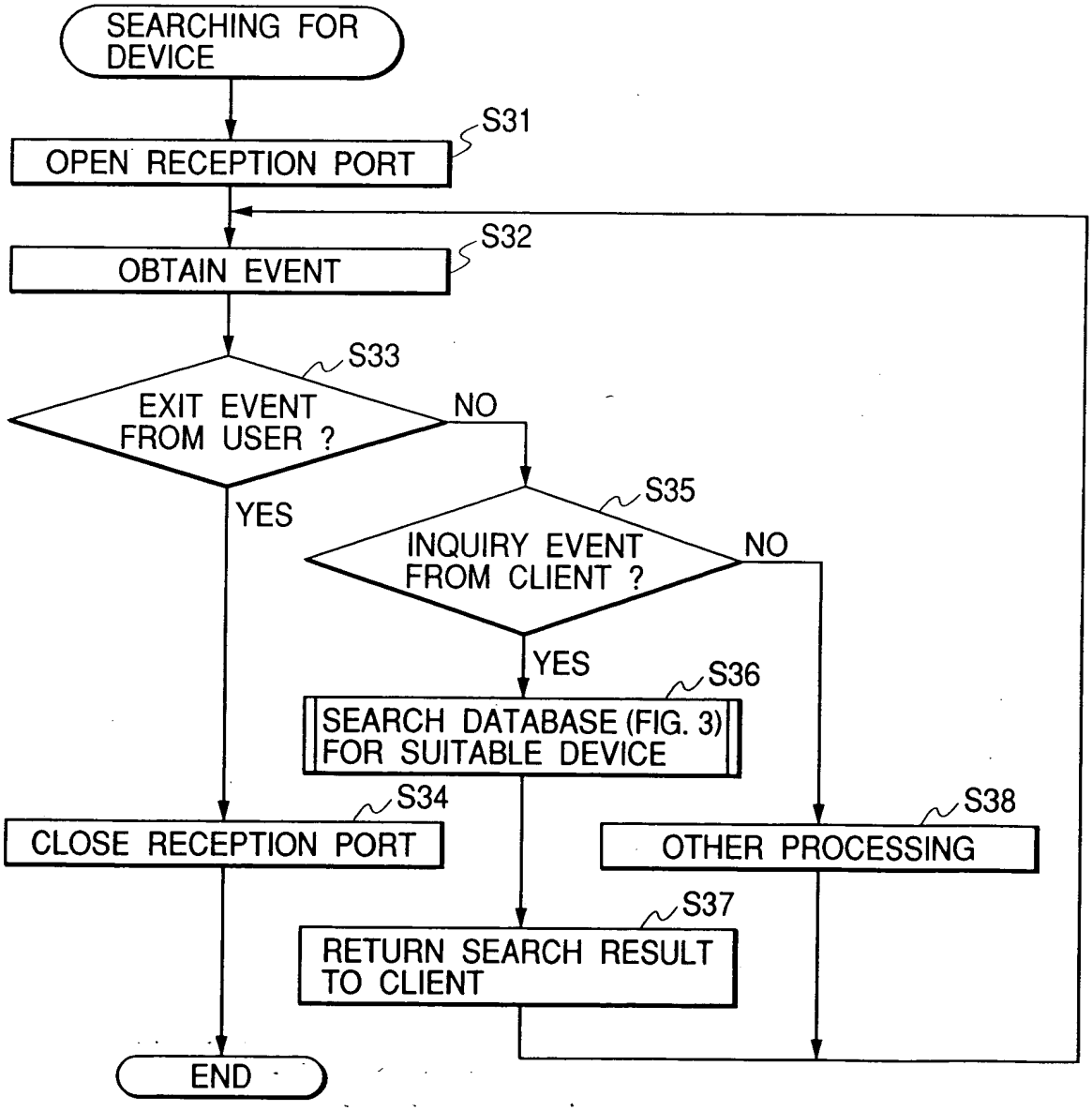

SEARCHING FOR DEVICE
S31
OPEN RECEPTION PORT
S32
OBTAIN EVENT
S33
EXIT EVENT FROM USER ?
NO
YES
S35
INQUIRY EVENT FROM CLIENT ?
NO
YES
S36
SEARCH DATABASE (FIG. 3) FOR SUITABLE DEVICE
S34
CLOSE RECEPTION PORT
S38
OTHER PROCESSING
S37
RETURN SEARCH RESULT TO CLIENT
END

FIG. 13

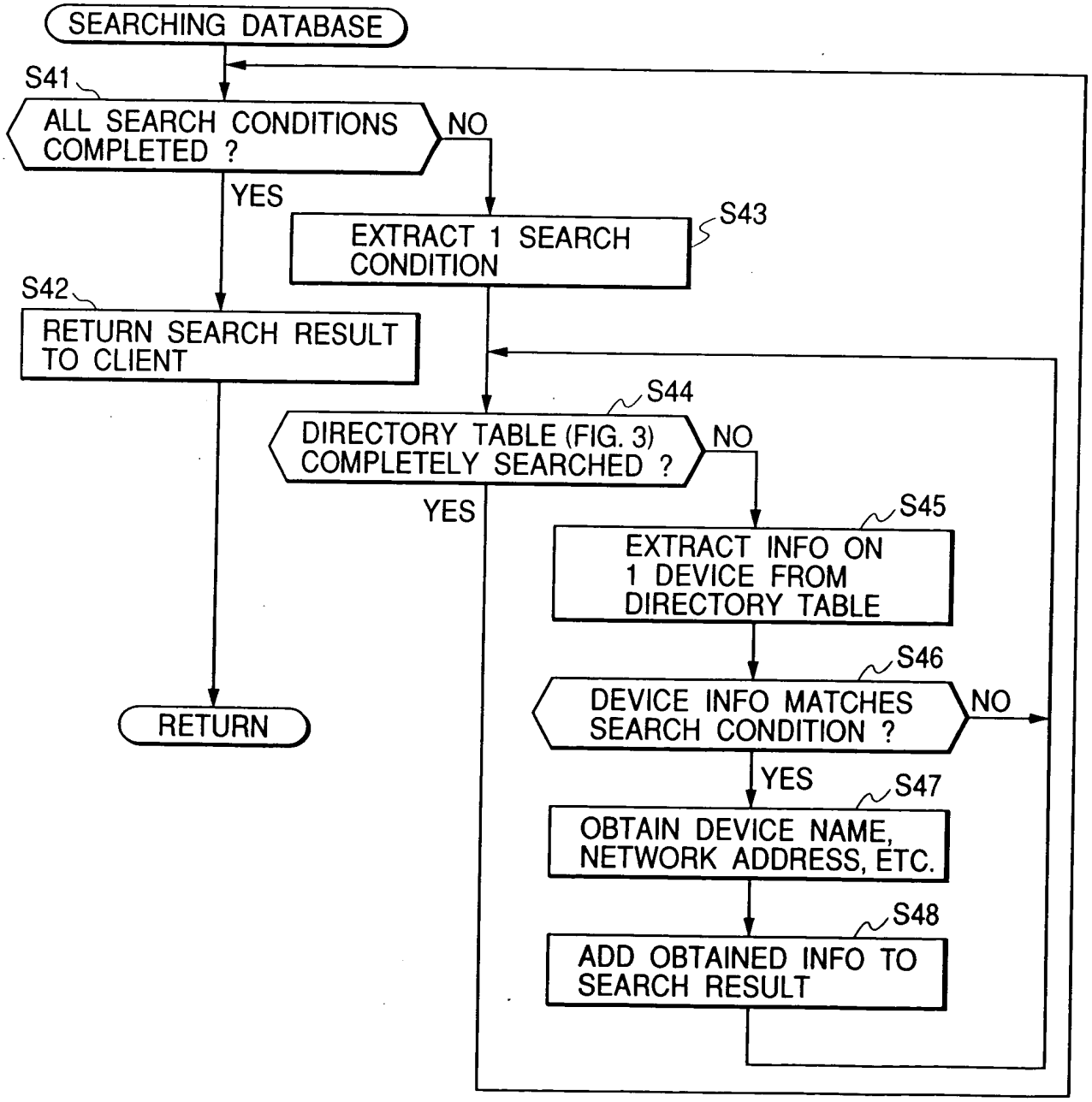
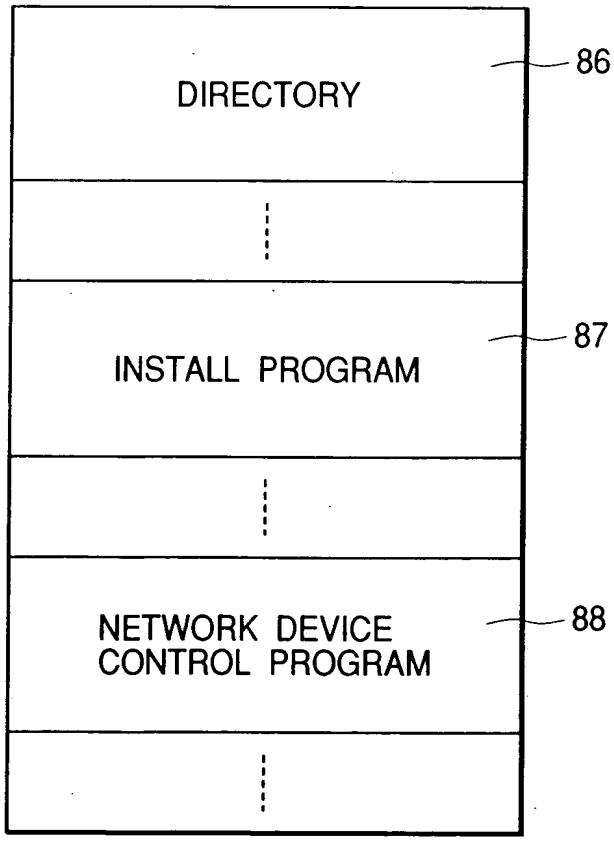

SEARCHING DATABASE
S41
ALL SEARCH CONDITIONS COMPLETED ?
NO
YES
S43
EXTRACT 1 SEARCH CONDITION
S42
RETURN SEARCH RESULT TO CLIENT
S44
DIRECTORY TABLE (FIG. 3) COMPLETELY SEARCHED ?
NO
YES
S45
EXTRACT INFO ON 1 DEVICE FROM DIRECTORY TABLE
S46
DEVICE INFO MATCHES SEARCH CONDITION ?
NO
YES
S47
OBTAIN DEVICE NAME, NETWORK ADDRESS, ETC.
S48
ADD OBTAINED INFO TO SEARCH RESULT
RETURN

FIG. 14

DEVICE NAME	NETWORK ADDRESS	DEVICE TYPE	COLOR PRINTING	DUPLEX PRINTING	STAPLING
COLOR PRINTER	192.168.16.31	PRINTER	1	1	1
MFP	192.168.16.32	MFP	0	1	1
2ND MONOCHROME PRINTER	192.168.16.155	PRINTER	0	0	1
1ST MONOCHROME PRINTER	192.168.16.156	PRINTER	0	1	0

FIG. 15


DIRECTORY
86
INSTALL PROGRAM
87
NETWORK DEVICE CONTROL PROGRAM
88